

158 FERC ¶ 61,129  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;  
Norman C. Bay, and Colette D. Honorable.

California Independent System Operator Corporation      Docket No. ER16-1483-002  
ER16-1483-004

ORDER ON COMPLIANCE, CLARIFICATION, AND REHEARING

(Issued February 2, 2017)

1. On September 16, 2016, the Commission issued an order accepting, subject to condition, proposed revisions to the California Independent System Operator Corporation (CAISO) tariff to address CAISO's compliance with North American Electric Reliability Corporation (NERC) Reliability Standard BAL-003-1.1 – Frequency Response and Frequency Bias Setting (BAL-003-1.1).<sup>1</sup> On September 28, 2016, Powerex Corp. (Powerex) filed a request for clarification. On October 14, 2016, the NRG Companies (NRG) and the Western Power Trading Forum (WPTF) jointly filed a request for rehearing and clarification. On October 17, 2016, CAISO filed a request for clarification or, in the alternative, a request for rehearing. Also, on October 17, 2016, CAISO submitted a compliance filing in response to the directives in the September 16 Order.

2. In this order, we grant CAISO's and Powerex's requests for clarification and deny NRG's and WPTF's requests for rehearing. We also accept CAISO's tariff revisions submitted in compliance with the September 16 Order, effective August 15, 2016.

**I. Background**

3. On April 21, 2016, CAISO filed proposed revisions to its tariff to address CAISO's compliance with BAL-003-1.1. Specifically, CAISO proposed to: (1) clarify requirements for generators with governor controls; (2) establish authority to procure transferred frequency response from another balancing authority (BA); (3) allocate the cost of transferred frequency response to NERC or Western Electricity Coordinating Council (WECC) metered demand; (4) clarify CAISO's practice of designating operating reserves procured day-ahead as contingency only reserves in real-time; and (5) clarify

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<sup>1</sup> *Cal. Indep. Sys. Operator Corp.*, 156 FERC ¶ 61,182 (2016) (September 16 Order).

which entities generally issue voltage schedules. In the September 16 Order, the Commission accepted CAISO's proposed tariff revisions, subject to condition, effective August 15, 2016.

4. As relevant here, the Commission accepted CAISO's proposal to define and establish authority to procure transferred frequency response, subject to condition. Specifically, the Commission directed CAISO to submit a compliance filing to: (1) revise Attachment A (Definitions) of the CAISO tariff to clarify that transferred frequency response does not change or transfer the NERC-designated frequency response obligations of any entity;<sup>2</sup> and (2) affirmatively state in Appendix A of the CAISO tariff that CAISO cannot claim on a compliance form that it has received, or that the counterparty has transferred, more frequency response performance than the counterparty has produced.<sup>3</sup> Additionally, the Commission directed CAISO to submit an informational report on the status of its Phase Two initiative regarding frequency response compliance in six months.<sup>4</sup> Finally, the Commission directed CAISO to revise section 42.2.1 of its tariff to reflect that the cost of transferred frequency response should not exceed the estimated cost of procuring additional regulation up, consistent with the provisions CAISO described in its May 19 Answer and July 18 Supplemental Filing.<sup>5</sup>

## **II. Discussion**

### **A. Procedural Matters**

5. Notice of CAISO's compliance filing was published in the *Federal Register*, 81 Fed. Reg. 72,799 (2016), with interventions and protests due on or before November 7, 2016. None was filed.

### **B. Substantive Matters**

#### **1. Transferred Frequency Response**

6. In support of its proposal, CAISO explained that transferred frequency response is a compliance instrument that does not involve the provision or exchange of physical

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<sup>2</sup> September 16 Order, 156 FERC ¶ 61,182 at PP 48, 51.

<sup>3</sup> *Id.* PP 49, 51.

<sup>4</sup> *Id.* P 51.

<sup>5</sup> *Id.* P 60.

services. Thus, CAISO elaborated, a BA selling transferred frequency response would decrease the frequency response performance it reports on NERC compliance forms while a BA that procures transferred frequency response would increase its reported performance by the procured amount.<sup>6</sup> CAISO further stated that it would procure transferred frequency response in advance of a compliance year, and that the right to adjust its reported performance on NERC compliance forms would apply to all frequency response events during the year.<sup>7</sup>

7. In the September 16 Order, the Commission accepted CAISO's proposed tariff revisions that define and establish authority to procure transferred frequency response. However, in doing so, the Commission stated that transferred frequency response represents more than "... an adjustment on a NERC compliance form" and thus interpreted CAISO's proposal as committing the counterparty BA to provide frequency response service, and not simply an arrangement for counterparties to transfer a regulatory obligation by means of bookkeeping entries.<sup>8</sup> Further, the Commission set the expectation that a counterparty BA providing the procured frequency response will have available frequency response in excess of its NERC-designated frequency response obligation. Specifically, the Commission explained that:

If a BA provides less frequency response service during the compliance year's reportable disturbance events than required by both its own BAL-003-1.1 obligation and by any agreement to provide transferred frequency response to CAISO... [then] for compliance purposes, [CAISO has] the right to report, for example, the entirety of the amount of transferred frequency response acquired, up to the counterparty BA's total actual performance.<sup>9</sup>

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<sup>6</sup> *Id.* P 18.

<sup>7</sup> *Id.* PP 19, 35. CAISO explained that any contract for transferred frequency response would apply to all disturbance events identified by NERC as reportable events during the reporting year. CAISO stated that in reporting transferred frequency response on NERC Frequency Response Survey (FRS) Forms 1 and 2, it would increase the amount of its performance for each disturbance event by the amount of transferred frequency response procured from another BA, and the counterparty BA would decrease the performance that it reports for each event by the same amount.

<sup>8</sup> *Id.* P 45.

<sup>9</sup> *Id.* P 46.

Consistent with this interpretation, the Commission directed CAISO to revise its tariff to state that it “cannot claim on a compliance form that it has received, or that the counterparty has transferred, more frequency response performance than the counterparty has produced.”<sup>10</sup>

a. **Requests for Clarification or, Alternatively, Rehearing**

8. CAISO requests that the Commission clarify that it is permissible for a BA to support a contract to provide transferred frequency response during a specific compliance year based on the BA’s annual frequency response measure<sup>11</sup> under BAL-003-1.1.<sup>12</sup> CAISO asserts that without this clarification, BAs could interpret the Commission’s September 16 directive as requiring them to sustain a net actual interchange measure in response to every individual frequency disturbance event. CAISO argues that such a requirement would make it virtually impossible for it to contract for transferred frequency response and would “effectively eliminate the commercial ability” of a BA to supply transferred frequency response.<sup>13</sup> CAISO states that an interpretation of the Commission’s directive that is linked to every individual disturbance event (i.e., event-by-event) is inconsistent with both CAISO’s proposal and with the terms of BAL-003-1.1 compliance.<sup>14</sup> CAISO states that because compliance with BAL-003-1.1 is not based on performance in connection with a single disturbance event, a BA’s transferred frequency response performance should similarly not be limited by each event. Should the Commission decline to grant the requested clarification, CAISO requests rehearing of the September 16 Order on this issue.<sup>15</sup>

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<sup>10</sup> *Id.* P 49.

<sup>11</sup> NERC defines Frequency Response Measure as “the median of all the Frequency Response observations reported annually by Balancing Authorities or Frequency Response Sharing Groups for frequency events specified by the ERO. This will be calculated as MW/0.1Hz.”

<sup>12</sup> CAISO Clarification Request at 1-2. CAISO notes that its proposed tariff revisions filed in response to the September 16 Order reflect this understanding.

<sup>13</sup> *Id.* at 2 and 7.

<sup>14</sup> *Id.* at 5.

<sup>15</sup> *Id.* at 4.

9. Powerex requests that the Commission clarify that its directive in limiting CAISO's reporting of transferred frequency response for compliance purposes is intended to limit transferred frequency response based on the selling BA's median performance during a compliance year, consistent with the performance standard adopted for BAL-003-1.1.<sup>16</sup> Powerex explains that Requirement R1 of BAL-003-1.1 requires each BA to demonstrate that its median measurement of performance across all identified disturbance events within the compliance year is sufficient to meet the BA's frequency response obligation.<sup>17</sup> Additionally, Powerex is concerned that an event-specific interpretation could mean that "a single low measurement value during a disturbance event at the end of the compliance year could effectively cap the transferred frequency response that could be reported for all prior events as well."<sup>18</sup> Powerex contends that this would deny CAISO the benefits of transferred frequency response by forcing it to rely on an unrepresentative measurement of the counterparty BA's performance, thereby increasing compliance risks and uncertainty for CAISO.<sup>19</sup>

**b. Compliance Filing**

10. On compliance, CAISO proposes to modify the definition of transferred frequency response in Attachment A of its tariff as follows:

~~A frequency response performance adjustment obligation under Applicable Reliability Criteria expressed in MW/0.1Hz that a receiving Balancing Authority may acquire under an arrangement whereby another Balancing Authority adjusts increases its frequency response performance downward obligation by the same amount it has provided to the receiving Balancing Authority or that a delivering Balancing Authority may provide under an arrangement whereby another Balancing Authority reduces its performance obligation by the same amount. Transferred Frequency Response is a compliance instrument and there is no exchange of physical services~~

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<sup>16</sup> Powerex Request for Clarification at 4.

<sup>17</sup> *Id.* Powerex states that the standard does not directly measure the frequency response actually produced by generators providing the service; instead the standard uses an indirect measure based on changes in a balancing authority area's net actual interchange which can be affected by system conditions unrelated to the relevant generators' responsiveness.

<sup>18</sup> *Id.* at 8.

<sup>19</sup> *Id.* at 7.

~~between Balancing Authorities.~~

Transferred Frequency Response is reported on applicable NERC/WECC forms, and applied consistently to each reported frequency disturbance event. On these forms, the delivering Balancing Authority ~~decreases~~ increases its performance ~~obligation~~ and the receiving Balancing Authority increases ~~decreases~~ its performance ~~obligation~~ by the same amount.

Transferred Frequency Response may reflect an aggregate amount from multiple contracts. Any reported Transferred Frequency Response will not exceed the frequency response performance that the delivering Balancing Authority has produced as reflected in its annual frequency response measure.<sup>20</sup>

11. CAISO states that these revisions comply with the Commission's directives in the September 16 Order. First, CAISO states that its proposed revisions clarify that BAs may adjust their frequency response performance under Reliability Standard BAL-003-1.1 and the provision of transferred frequency response will not modify the BA's frequency response obligation as designated by NERC.<sup>21</sup> Second, CAISO states that the proposed revisions clarify that transferred frequency response may not exceed the frequency response performance that the delivering BA has produced as reflected in its frequency response measure. According to CAISO, the BA providing the transferred frequency response must have at least sufficient frequency response in its annual measure or median measurement of performance to support the amount that it provides to CAISO.<sup>22</sup>

**c. Commission Determination**

12. We grant CAISO's and Powerex's respective requests for clarification that contracts for transferred frequency response may be supported by a BA's frequency

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<sup>20</sup> Compliance Filing at 4.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.* CAISO explains that NERC does not calculate a BA's average response across all reportable disturbance events but instead selects the median score. Accordingly, CAISO states that under its tariff, this annual frequency response measure will determine whether a BA has sufficient frequency response capability to support a contract for transferred frequency response.

response measure, consistent with the performance standard required for BAL-003-1.1 compliance.

13. In the September 16 Order, the Commission interpreted CAISO's proposal to procure transferred frequency response as committing the counterparty BA to provide frequency response service, and not simply an arrangement for counterparties to transfer a regulatory obligation by means of bookkeeping entries.<sup>23</sup> This is based upon the Commission's understanding that a physical service underpins primary frequency response service compliance representations to NERC.<sup>24</sup> In addition, the September 16 Order stated that due to potential NERC penalties for underperformance, counterparty BAs have an incentive to provide sufficient primary frequency response to cover their own obligations in addition to any amounts they have committed by contract to CAISO.<sup>25</sup> Therefore, we continue to expect a transferring BA to perform in a manner that satisfies its own obligation, as well as the contracted amount of transferred primary frequency response.

14. However, we note that in its assessment of various BAL-003-1.1 compliance mechanisms, NERC determined that the degree of variability in observed frequency response performance values limits the usefulness of imposing a single event-based compliance measure on BAs.<sup>26</sup> The Commission and NERC have recognized several reasons for this variability. In approving the use of the median performance measure in Order No. 794, the Commission noted that the standard drafting team determined that "the median's superior resiliency to this type of data quality problem [i.e., a data set with outliers] makes it the best aggregation technique at the time."<sup>27</sup> Accordingly, BAL-003-1.1 recognizes a BA's median performance as representative of its frequency response performance during a compliance year. We therefore find that it is reasonable for

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<sup>23</sup> September 16 Order, 156 FERC ¶ 61,182 at P 45.

<sup>24</sup> *Id.* P 46.

<sup>25</sup> *Id.*

<sup>26</sup> NERC BAL-003-1.1 Petition in Docket No. RM13-11, Exh. D at 24. NERC states that its single event analysis is based on the results of its September 2012 Frequency Response Standard Field Trial Analysis.

<sup>27</sup> *Frequency Response and Frequency Bias Setting Reliability Standard*, Order No. 794, 146 FERC ¶ 61,024 (2014) (Order No. 794) at P 32. On January 16, 2014, the Commission issued Order No. 794 approving NERC Reliability Standard BAL-003-1, which assigns certain primary frequency response responsibilities to BAs and to Frequency Response Sharing Groups. On November 13, 2015, the Commission issued a delegated letter order approving an errata filing, BAL-003-1.1, to correct certain errors in NERC's original BAL-003-1 petition.

CAISO to link its contracts for transferred frequency response to the element utilized for BAL-003-1.1 compliance, i.e., the frequency response measure of its counterparties.

15. In directing CAISO to revise its tariff to state that it “cannot claim on a compliance form that it has received, or that the counterparty has transferred, more frequency response performance than the counterparty has produced,” the Commission did not intend to require BAs to achieve a specific net actual interchange measure for each disturbance event to support transferred frequency response contracts. Rather, we clarify here that the Commission’s finding in the September 16 Order requires CAISO to report, on the relevant NERC compliance forms, transferred frequency response values which may not exceed the counterparty BA’s frequency response measure as defined in BAL-003-1.1.

16. We also accept CAISO’s compliance filing including its revised definition of transferred frequency response in Attachment A noted above, consistent with our clarification. Finally, because we are granting CAISO’s request for clarification, we dismiss its alternative request for rehearing as moot.

## **2. Compensation for Generators**

17. In the September 16 Order, the Commission found that CAISO’s proposal to procure transferred frequency response via competitive solicitation from BAs and not individual generators is not unduly discriminatory because generators and BAs are differently situated.<sup>28</sup> The Commission found that CAISO’s proposal involves the sale of compliance reporting rights associated with a BA’s overall frequency response performance and noted that BAs possess reporting rights and responsibilities associated with their compliance obligation that generators do not possess. Therefore, the Commission concluded that CAISO’s proposal is not unduly discriminatory because generators would not provide the same service as BAs. The Commission stated that generators are not subject to compliance under BAL-003-1.1 and therefore have no exposure to NERC penalties for failing to meet Frequency Response Obligations. BAs, however, do have such exposure, and therefore have an incentive to comply.<sup>29</sup> Accordingly, the Commission found that CAISO’s proposal involves both the

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<sup>28</sup> September 16 Order, 156 FERC ¶ 61,182 at P 47.

<sup>29</sup> *Id.* P 46 (“thus a counterparty BA has a necessary incentive to provide sufficient primary frequency response to cover its own obligation and whatever compliance obligation it has committed to CAISO in the form of potential NERC penalties as a result of failing to meet its own compliance obligation”).



procurement of frequency response and the sale of compliance reporting rights associated with the BA's overall frequency response performance.<sup>30</sup>

**a. WPTF and NRG Rehearing Request**

18. NRG and WPTF argue that the Commission erred in the September 16 Order by accepting an inequitable scheme whereby CAISO may procure a necessary reliability product outside its BA instead of compensating internal generators for providing the same service.<sup>31</sup> First, NRG and WPTF request clarification regarding the September 16 Order's assertion that "generators would not provide the same service as BAs" in regards to transferred frequency response.<sup>32</sup> NRG and WPTF argue that the Commission contradicted itself in its explanation of the physical and compliance nature of transferred frequency response.<sup>33</sup> Second, NRG and WPTF contend that allowing one entity to compete to provide a physical service to CAISO for compensation while denying another entity the ability to compete to offer that product is the *sine qua non* of undue discrimination. Third, NRG and WPTF state that the Commission's decision "to allow a utility to bundle a physical product and then sell the bundled attribute, without allowing individual generators to compete conflicts with the Commission's Order No. 888 and 890 policy of promoting competition and ending undue discrimination."<sup>34</sup>

19. Fourth, NRG and WPTF argue that the Commission erred in prohibiting generators from competing to supply services unless they bear the underlying NERC compliance obligation. Lastly, NRG and WPTF request that the Commission grant rehearing of its determination that "this proposal could provide CAISO with a lower-cost option for meeting its frequency response obligation than procuring additional regulation service or exceptionally dispatching generators when a frequency deviation occurs."

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<sup>30</sup> September 16 Order, 156 FERC ¶ 61,182 at P 47 ("[a]s the only entities subject to BAL-003-1.1 compliance, BAs possess reporting rights and responsibilities associated with their compliance obligations that generators do not possess") (internal citation omitted).

<sup>31</sup> NRG and WPTF Request for Rehearing at 3.

<sup>32</sup> *Id.* at 4.

<sup>33</sup> *Id.* at 6.

<sup>34</sup> *Id.* at 3.

NRG and WPTF argue that increasing the size of a market by bringing additional competitors into the market can only decrease price.<sup>35</sup>

**b. Commission Determination**

20. We deny rehearing. We reject NRG and WPTF's contention that the Commission acted arbitrarily and capriciously by finding that transferred frequency response contains both compliance reporting rights and delivery of physical primary frequency response service. Transferred frequency response was introduced as part of NERC's initial BAL-003-1.1 compliance provisions.<sup>36</sup> As described above, finding that primary frequency response service underpins a BA's reporting of frequency response performance to NERC, including the reporting of transferred frequency response, is consistent with BAL-003-1.1 and Order No. 794. Furthermore, as noted in the September 16 Order, entities subject to BAL-003-1.1, namely BAs, that sell primary frequency response service as transferred frequency response include the opportunity for the counterparty BAs to report a portion of or all the service that they provide to the interconnection for their own compliance purposes, in the event that they fail to provide the contracted-for amount of transferred frequency response.<sup>37</sup>

21. Contrary to NRG and WPTF's characterization of the September 16 Order as stating that "generators are incapable of bidding to provide a physical product to the CAISO,"<sup>38</sup> the September 16 Order determined that generators and BAs are differently situated due to the unique nature of BAs' BAL-003-1.1 compliance obligations.<sup>39</sup> CAISO proposed to procure transferred frequency response, which includes, as stated above, reporting rights as well as primary frequency response service. As stated in the September 16 Order, in addition to the physical service that underpins the product, transferred frequency response can also act as an insurance policy for purposes of compliance with BAL-003-1.1.<sup>40</sup>

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<sup>35</sup> *Id.* at 12.

<sup>36</sup> *See* NERC, Petition, Docket No. RM13-11-000 at Exhibit K.

<sup>37</sup> *See* September 16 Order, 156 FERC ¶ 61,182 at P 46.

<sup>38</sup> NRG and WPTF Request for Rehearing at 4.

<sup>39</sup> September 16 Order, 156 FERC ¶ 61,182 at P 47.

<sup>40</sup> *Id.* at P 46.

22. NRG and WPTF attempt to construe the September 16 Order as approving transferred frequency response as a bundled service similar to those that were the subject of Order No. 888 and the Commission's effort to promote open transmission access. However, this is a flawed analogy. With respect to NRG and WPTF's argument that BAs may be bundling service from their generators and circumventing Order No. 888 to provide the physical aspect of transferred frequency response, how each counterparty BA goes about providing this service and the contractual relationship between BAs and generators is not the subject of CAISO's proposal and is beyond the scope of this proceeding.

23. Regarding NRG and WPTF's assertion that "increasing the size of the relevant market by allowing generators the ability to compete to provide frequency response can only decrease costs to the CAISO,"<sup>41</sup> the September 16 Order only found that CAISO's proposal to procure transferred frequency response would likely be a lower-cost option than procuring additional regulation up.<sup>42</sup> Under section 205 of the Federal Power Act, the issue before the Commission is whether CAISO's proposal is just and reasonable and not unduly discriminatory, and not whether the proposal is more or less reasonable than other proposed alternatives.<sup>43</sup> Therefore, because the Commission has found CAISO's proposal to be just and reasonable and not unduly discriminatory, as discussed in the September 16 Order, it need not assess NRG and WPTF's alternative proposal.

24. Accordingly, we deny NRG and WPTF's request for rehearing and affirm the Commission's finding that CAISO's proposal to procure transferred frequency response under the competitive solicitation from BAs and not individual generators is not unduly discriminatory. However, it is our expectation that CAISO will continue its discussion of market-based mechanisms related to primary frequency response through its stakeholder process and submit an informational report on the status of its Phase Two initiative, as directed in the September 16 Order.<sup>44</sup>

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<sup>41</sup> NRG and WPTF Request for Rehearing at 5.

<sup>42</sup> September 16 Order, 156 FERC ¶ 61,182 at P 44.

<sup>43</sup> See, e.g., *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984), *cert. denied*, 469 U.S. 917 (1984) (utility need establish that its proposed rate design is reasonable, not that it is superior to alternatives); *Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,282, at P 31 (2009).

<sup>44</sup> September 16 Order, 156 FERC ¶ 61,182 at P 51.

**3. Other Compliance Issues**

25. In addition to the matters discussed above, CAISO's compliance filing includes proposed revisions to its tariff, consistent with the September 16 Order. Specifically, CAISO proposed revisions to section 42.2.1 of its tariff to reflect that the cost of transferred frequency response should not exceed the estimated cost of procuring additional regulation up.<sup>45</sup> These revisions were not protested. We find these tariff revisions satisfactorily comply with the Commission's directives in the September 16 Order and therefore accept them effective August 15, 2016.

The Commission orders:

(A) CAISO's and Powerex's requests for clarification are granted and NRG and WPTF's request for rehearing is hereby denied, as discussed in the body of this order.

(B) CAISO's alternative request for rehearing is hereby dismissed, as discussed in the body of this order.

(C) CAISO's compliance filing is hereby accepted, effective as of August 15, 2016, as requested, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

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<sup>45</sup> *Id.* P 60.